

REMARKS

By this Amendment, Applicant amends claims 1, 3, 5-6, 8, 10, 14, 18-23, 25, 28, and 31 to more appropriately define the present invention, and cancels claims 24, 26, 27, 29, and 30, without prejudice or disclaimer of the subject matter thereof. Claims 1, 3, 5-6, 8, 10, 12-14, 18-23, 25, 28, and 31 are now pending in this application.

In the Office Action mailed April 13, 2004, the Examiner rejected claims 1, 3-6, 8, 10-15, 17-21 and 24-31 under 35 U.S.C. § 102(b) as anticipated by an article to Taniguchi et al. ("Pitch Sharpening for Perceptually Improved CELP and the Sparse-Delta Codebook for Reduction Computation") and rejected claims 13-14 and 22-23 under 35 U.S.C. § 103(a) as unpatentable over Taniguchi.

Applicant respectfully traverses the rejection of claims 1, 3-6, 8, 10-15, 17-21 and 24-31 under 35 U.S.C. § 102(b) as anticipated by Taniguichi. To properly anticipate Applicants' claimed invention, the Examiner must demonstrate the presence of each and every element of the claim in issue, either expressly described or under principles of inherency, in a single prior art reference. Furthermore, "[t]he identical invention must be shown in as complete detail as is contained in the . . . claim." See M.P.E.P. § 2121 (8th ed., Aug. 2001), *quoting* Richardson v. Suzuki Motor Co., 868 F.2d 1126, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989). Finally, "[t]he elements must be arranged as required by the claim." M.P.E.P. § 2131 (8th ed. 2001), p. 2100-69.

Applicant's claim 1, as amended, recites a speech encoding method including, among other things, the steps of "adding a first signal from an adaptive codebook, which stores a past low-pass filtered excitation signal, and a second signal from a second codebook to generate an excitation signal; filtering the excitation signal through a short-term excitation filter having low-pass characteristics to produce a low-pass filtered

excitation signal; and storing the low-pass filtered excitation signal in the adaptive codebook.” Taniguchi does not disclose or suggest at least these features.

At page 2 of the Office Action, the Examiner relies on various portions of Taniguchi, allegedly teaching the method recited in claim 1. The cited portions of Taniguchi, however, are directed toward a non-linear feedback component that processes noisy feedback from an output of a coder, and removes all non-periodic components. As a result, only a signal component that is expected to be periodic remains (See Fig. 4 of Taniguchi, as well as p. 243, Section 3.2). Moreover, Taniguchi does not describe processing that occurs in the “pitch sharpening block” shown in Fig. 4. The cited portion of Taniguchi, therefore, is silent at least as to the claimed method including steps of “adding a first signal from an adaptive codebook, which stores a past low-pass filtered excitation signal, and a second signal from a second codebook to generate an excitation signal” and “filtering the excitation signal through a short-term excitation filter having low-pass characteristics to produce a low-pass filtered excitation signal.”

Moreover, while Taniguchi also discloses an example of reduced-gain pitch sharpening in relation to Fig. 5 and Section 3.3, such disclosure also fails to teach the method recited in claim 1. Fig. 5 of Taniguchi discloses adding signals that are obtained by multiplying each signal output by a gain from an adaptive codebook and a stochastic codebook and adding the result to the adaptive codebook. Accordingly, Taniguchi does not disclose at least “adding a first signal from an adaptive codebook, which stores a past low-pass filtered excitation signal, and a second signal from a second codebook to generate an excitation signal; filtering the excitation signal through

a short-term excitation filter having low-pass characteristics to produce a low-pass filtered excitation signal; and storing the low-pass filtered excitation signal in the adaptive codebook,” as recited in claim 1 (emphasis added)

Independent claims 5, 8, 18, 19, and 20, while of a different scope, include some recitations similar to that of claim 1. For example, Applicant’s claim 5 recites a combination including, among other things, “adding a first signal from the first code vector and a second signal from the second code vector to generate an excitation signal; filtering the excitation signal through a short-term excitation filter having low-pass characteristics to produce a low-pass filtered excitation signal; and storing the low-pass filtered excitation signal in the adaptive codebook.”

In addition, Applicant’s claim 8 recites a combination including, among other things, “adding a first signal from an adaptive codebook, which stores a past low-pass filtered excitation signal, and a second signal from a second codebook to generate an excitation signal; filtering the excitation signal through a short-term excitation filter having low-pass characteristics to produce a low-pass filtered excitation signal; and storing the low-pass filtered excitation signal in the adaptive codebook.”

Furthermore, Applicant’s claim 18 recites a combination including, among other things, “an adder configured to add a first signal from the adaptive codebook and a second signal from the second codebook to generate an excitation signal” and “a short-term excitation filter having low-pass characteristics configured to filter the excitation signal and produce a low-pass filtered excitation signal to be stored in the adaptive codebook.”

Moreover, Applicant's claim 19 recites a combination including, among other things, "a first codebook configured to store a past low-pass filtered excitation signal and generate a first code vector; an adder configured to add a first signal from the selected first code vector and a second signal from the selected second code vectors to generate an excitation signal; a short-term excitation filter having low-pass characteristics configured to filter the excitation signal and produce a low-pass filtered excitation signal to be stored in the adaptive codebook."

Applicant's claim 20 recites a combination including, among other things, "an adaptive codebook configured to store a past low-pass filtered excitation signal and configured to generate a first signal; an adder configured to add the first signal and the second signal to generate an excitation signal; a short-term excitation filter having low-pass characteristics configured to filter the excitation signal and produce a low-pass filtered excitation signal to be stored in the adaptive codebook."

Thus, in view of the above-described deficiencies of Taniguchi, Applicant respectfully submits that claim 1 is allowable over the applied reference and claims 5, 8, 18, 19, and 20 are also allowable for at least the reasons discussed above in relation to claim 1. Accordingly, Applicant respectfully requests the Examiner to withdraw the rejection of claims 1, 5, 8, 18, 19, and 20.

Claims 3, 6, 10, 12, 21, 25, 28, and 31 depend from one of allowable independent claims 1, 5, 8, and 18, and are thus allowable at least due to their dependencies. Accordingly, Applicant respectfully requests the Examiner to withdraw the rejection of dependent claims 3, 6, 10, 12, 21, 25, 28, and 31 as well.

Furthermore, regarding claims 12 and 21, the Examiner alleges that features of these claims are inherent in Taniguchi. Because Taniguchi fails to expressly set forth a particular element, the Examiner must then show that these features are inherently disclosed to substantiate a claim of anticipation. See In re Robertson, 169 F.3d 743, 745 (Fed. Cir. 1999). To establish inherency, the Examiner must specifically identify extrinsic evidence that makes clear to one skilled in the art that the missing element "is necessarily present" in Taniguchi. See *id.*; see also Continental Can Co. v. Monsanto Co., 948 F.2d 1264, 1269 (Fed. Cir. 1991). The Examiner, however, merely states that these claims are inherent without offering any evidence in support of the allegation. Accordingly, Applicant respectfully submits that the rejection of claims 12 and 21 is improper and these claims are allowable for this additional reason.

Applicant respectfully traverses the rejection of claims 13-14 and 22-23 under 35 U.S.C. § 103(a) as unpatentable over Taniguchi. To establish a proper *prima facie* case of obviousness under 35 U.S.C. § 103(a), the Examiner must demonstrate each of three requirements. First, the reference or references, taken alone or combined, must teach or suggest each and every element recited in the claims. See M.P.E.P. § 2143.03 (8th ed. 2001). Second, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to combine the references in a manner resulting in the claimed invention. See M.P.E.P. § 2143.01 (8th ed. 2001). Third, a reasonable expectation of success must exist. See M.P.E.P. § 2143.02 (8th ed. 2001). Moreover, each of these requirements must be found in the prior art, not in applicant's disclosure. See M.P.E.P. § 2143 (8th ed. 2001).

The Examiner admits Taniguchi “does not specifically show that a speech decoder and output device configured to output a speech signal from the decoder.” See Office Action, page 3. The Examiner then takes Official Notice that “speech encodes work in conjunction with speech decoders to process speech signals and output them. *Id.* Applicant respectfully traverses the Examiner’s taking of Official Notice, and respectfully refers the Examiner to the February 21, 2002 Memorandum from USPTO Deputy Commissioner for Patent Examination Policy, Stephen G. Kunin, regarding “Procedures for Relying on Facts Which are Not of Record as Common Knowledge or for Taking Official Notice.”

In relevant part, the Memorandum states, “If the examiner is relying on personal knowledge to support the finding of what is known in the art, the examiner must provide an affidavit or declaration setting forth specific factual statements and explanation to support the finding” (Memorandum, p. 3). Applicants traverse the Examiner’s presumed taking of “Official Notice,” noting the impropriety of this action, as the Federal Circuit has “criticized the USPTO’s reliance on ‘basic knowledge’ or ‘common sense’ to support an obviousness rejection, where there was no evidentiary support in the record for such a finding.” *Id.* at 1. Applicants submit that “[d]eficiencies of the cited references cannot be remedied by ... general conclusions about what is “ basic knowledge” or “common sense.”” In re Lee, 61 USPQ2d 1430, 1432-1433 (Fed. Cir. 2002), quoting In re Zurko, 59 USPQ2d 1693, 1697 (Fed. Cir. 2001).

Should the Examiner maintain the rejection after considering the arguments presented herein, Applicants submit that the Examiner must provide “the explicit basis on which the examiner regards the matter as subject to official notice and allow

Applicants to challenge the assertion in the next reply after the Office action in which the common knowledge statement was made" (*Id.* at 3, emphasis in original), or else withdraw the rejection.

Accordingly, since the Office Action only includes unsupported assertions concerning the obviousness of claims 13-14 and 22-23, the Examiner's rejection under 35 U.S.C. § 103(a) should be withdrawn. Moreover, Applicant respectfully submits that even if Taniguchi were modifiable in the manner proposed by the Examiner (and Applicant does not agree that it is), the reference would still suffer from the shortcomings noted above. Claims 13-14 and 22-23, therefore, are also allowable at least due to their dependence from allowable claims 1, 8, 18, and 20.

CONCLUSION

In view of the foregoing remarks, Applicant respectfully requests reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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